**Amendments to the Specification:**

Please amend the specification as follows:

On page 2, please replace the paragraph that starts on line 13 with the word "The" and ends on line 21 with the word "corners" with the following amended paragraph:

The invention provides a flip-chip integrated circuit (IC) package that has a reduced or non-existent tendency to develop these cracks. Flip-chip packages of the invention comprise at least one solid plane on the Ball Grid Array (BGA) side of the package substrate encompassing regions around at least one of the four corners of the integrated chip (IC, also called the "die") or "die shadow". The size and shape of the regions covered by the plane varies based on other design features of the package. These planes may be used as power or ground connections by defining BGA pads on the planes using ~~soldermask~~ solder mask. An important aspect of the invention is that it provides an area without geometric discontinuity on the BGA side surface in the region near the die corners.

On page 2, please replace the paragraph that starts on line 22 with the word "In" and ends on line 27 with the word "material" with the following amended paragraph:

In at least one embodiment of the present invention, laminated flip-chip interconnect packages comprise a substrate having a chip attach surface and a board attach surface that define contact pads for attachment to corresponding pads on the chip and board wherein the substrate board surface comprises at least one solid plane covering the chip attach surface region near the chip corners. The solid plane comprises a dielectric material, optionally covered with a ~~soldermask~~ solder mask or coverlay material.

On page 3, please replace the paragraph that starts on line 1 with the word "In" and ends on line 3 with the word "material" with the following amended paragraph:

In at least one embodiment of the present invention, the flip-chip package comprises at least one solid plane wherein the region near the chip corners consist of a solid plane of metal, optionally covered with a ~~soldermask~~ solder mask or coverlay material.

On page 3, please replace the paragraph that starts on line 4 with the word "In" and ends on line 6 with the word "material" with the following amended paragraph:

In another embodiment of the present invention, the solid plane comprises a solid plane of metal covered with a ~~soldermask~~ solder mask material, said ~~soldermask~~ solder mask having openings that define BGA pads.

On page 8, please replace the paragraph that starts on line 3 with the word "Through" and ends on line 8 with the word "respectively" with the following amended paragraph:

Through vias can be formed following lamination of interconnect substrate 300. In particular, vias can be formed by drilling or laser ablation processes as described, for example, in U.S. Patent No. 6,021,564. Following lamination, solder masks 310 and 315 are added to interconnect substrate 300. Solder masks 310 and 315 are then patterned to define contact pads 357, 390, for receipt of solder balls 355 from a chip [[355]] (not shown) and PWB (not shown), respectively.

On pages 8 and 9, please replace the paragraph that starts on page 9, line 27 with the word "Through" and ends on page 9, line 2 with the word "respectively" with the following amended paragraph:

Through vias can be formed following lamination of interconnect substrate 400. In particular, vias can be formed by drilling or laser ablation processes as described, for example, in U.S. Patent No. 6,021,564. Following lamination, solder masks 410 and 415 are added to interconnect substrate 400. Solder masks 410 and 415 are then patterned to define contact pads

457, 490 for receipt of solder balls 455 from a chip [[455]] (not shown) and PWB (not shown), respectively.

On page 10, please replace the paragraph that starts on line 17 with the word "Die" and ends on line 30 with the word "directions" with the following amended paragraph:

Die corner cracks form primarily from the mechanical constraint imposed by a stiffener ring and/or lid. As shown in Figure 5a and 5b, at elevated temperature (illustrated in Figure 5a), *e.g.* close to that used to gel and cure the various adhesive materials during the assembly process, the assembled module 500a, 500b is in a mostly stress-free state. However, ~~as shown in Figure 5b,~~ when cooled to a lower temperature (illustrated in Figure 5b), the mismatch in CTE between the die 510a, 510b and other components of the assembled module 500b, particularly between the die and the interconnect substrate 520a, 520b, causes the package to attempt to assume a concave downward shape. However, the stiffener ring 530a, 530b prevents this from happening, instead holding the region of the substrate that it covers in a flat shape. The transition between the concave downward profile of the region under the die and the largely flat profile under the stiffener ring occurs in the gap between the die and stiffener ring as shown schematically in Figure 5b. This change in shape over a short distance results in tensile bending strains developing on the BGA side 540 of the substrate. This is particularly true in the regions near the die corners 550 as there is a simultaneous curvature in both the x and y directions.

On page 11, please replace the paragraph that starts on line 1 with the word "The" and ends on line 6 with the word "area" with the following amended paragraph:

The more abrupt the change in shape, the higher the strain that will exist at the die corners and in the gap 560a, 560b between the die 510a, 510b and stiffener ring 530a, 530b. Conversely, if the change in shape can be made to occur more gradually, the strain will be reduced. Therefore, one action that can be taken to mitigate the problem is to increase the spacing between the die and stiffener ring. The larger the space between the die and the stiffener ring, the lower the critical strain. A lower critical strain will allow the use of a smaller solid plane area.

On page 12, please replace the paragraph that starts on line 8 with the word "According" and ends on line 12 with the word "material" with the following amended paragraph:

According to the present invention, an area without geometric discontinuities is provided on the BGA attach surface in the region near the die corners. This may be accomplished by an embodiment in which the BGA attach surface region near one or more die corners consists of a solid plane of dielectric material, optionally covered with a solid layer of ~~soldermask~~ solder mask or coverlay material.

On page 12, please replace the paragraph that starts on line 13 with the word "In" and ends on line 14 with the word "material" with the following amended paragraph:

In another embodiment, the region near one or more die corners may consist of a solid plane of metal, optionally covered with a solid layer of ~~soldermask~~ solder mask or coverlay material.

On page 12, please replace the paragraph that starts on line 15 with the word "In" and ends on line 26 with the word "material" with the following amended paragraph:

In yet another embodiment, the region near one or more die corners may consist of a solid plane of metal, covered with a ~~soldermask~~ solder mask material, said ~~soldermask~~ solder mask having openings forming defined BGA pads. This embodiment provides the benefit of a solid plane area near a die corner while still allowing the area to be functional. Use of a metal plane rather than a dielectric plane is more desirable because of the high strength and ductility of most metals compared to most dielectric materials. The use of a metal plane with openings in the covering ~~soldermask~~ solder mask is desirable because, first, it allows use of some of the pad locations to form mechanical interconnects with the PWB (for higher rigidity and support). Second, it allows those pad locations joined to the metal plane to be used to make an electrical connection to power or ground, thus avoiding the complete loss of valuable I/O connections.

This in turn helps avoid expanding the dimensions of the package and resulting cost increases to both the manufacturer and user.

On page 13, please replace the paragraph that starts on line 1 with the word "Finite" and ends on line 13 with the number "0.11%" with the following amended paragraph:

Finite element models can be used to determine the appropriate size of the solid planes. Figure 11 shows results from a model of a 40 mm square package with an 18.5 mm die and a 1.0 mm thick lid with several die-stiffener spacings (3 mm (Fig. 11a), 5 mm (Fig. 11b), and 7 mm (Fig. 11c)). A high strain region 1210a, 1210b, 1210c exists near the die corner 1200a, 1200b where the strain is greater than the critical strain at which cracking will occur. An aspect of the invention herein disclosed allows the means to adjust the area of, and locate the position of, a solid plane where a geometric discontinuity would cause a crack to form during assembly, testing, or use of the final interconnect module. The edges of the solid plane preferably extend beyond the high strain region because the edges of the solid plane themselves are discontinuities that could initiate cracks if the critical strain is exceeded. For the purposes of this particular analysis, the critical strain level was set at a value equal to 1/3 of the 95% confidence interval on the experimental fracture strain for MICROLAM dielectric material or 0.11%.